

Appln. No.: 10/687,344  
Response dated November 9, 2005  
Reply to Office Action of August 9, 2005

### **REMARKS/ARGUMENTS**

The Office Action of August 9, 2005 has been carefully reviewed and these remarks are responsive thereto. Claims 1-8, 11-12, and 14-23 are pending. Claims 9-10 and 13 have been cancelled. Claims 22-23 are new. Claims 1-9, 12-13, 15-21 were rejected as being anticipated by U.S. Patent No. 6,678,548 to Echauz *et al.* ("Echauz"). Claims 10-11 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Echauz in view of U.S. Patent No. 6,529,774 to Greene ("Greene").

In response, Applicants respectfully traverse the rejection in light of the following remarks.

### **Amendment to the Specification**

Minor typographical errors found in the specification have been corrected and entry of these minor changes is respectfully requested.

### **Cancelled Claims**

Claims 9 have been cancelled and the limitations of these claims have been incorporated into independent claim 1. Claim 10 has been cancelled and the limitations of claim 10 have been incorporated into new independent claim 22. Claim 13 has also been cancelled. Therefore, the rejection of these claims is considered moot. The cancelling of these claims is without prejudice to the refiling of similar claims in a continuation application.

### **Amendment to the Claims**

Claim 1 has been amended to recite limitations previously recited in claims 2 and 9 and to clarify the intended scope. Claim 1 and the claims depending from claim 1 have also been amended to remove the recitation of steps so as to avoid suggests that the claims are drafted in step-plus-function format. Claim 2 has been amended to clarify that, as recited in claim 2, the treatment is not applied immediately after receiving the indications but instead occurs after a period of time. Claim 11 has been amended to clarify the intended scope of the claimed subject matter. Claim 14 has been amended to correct the dependency from now cancelled claim 10. Claim 21 has been amended to recite features previously recited in now cancelled claim 9. No

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new matter has been added and the amended claims are believed to be in condition for allowance for at least the reasons provided below.

#### New Claims

Claims 22 and 23 are new. Claim 22 includes the limitations of now cancelled claim 10 but is written in independent form. Claim 23 depends from claim 22. Thus, no new matter has been added. Independent claim 22 is believed to patentable over the prior art for reasons similar to the reasons discussed with regard to claim 11 below and for the additional limitation recited therein that were not previously noted as being present in the references of record. For example, the Office Action has failed to suggest the feature "applying the treatment therapy every n<sup>th</sup> detection cluster" is present in the references of record.

#### Rejection under 35 U.S.C. § 102(e) – Echauz

Claims 1-9, 12-13, and 15-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by Echauz. Claims 9 and 13 were cancelled, as noted above, thus the rejection of these claims is moot. Claims 1, 15, 18 and 21 are independent.

Turning first to independent claim 1, claim 1 now recites "receiving a ... second indication whether to utilize the first and second inputs, wherein the second indication is determined by evaluating a criterion, wherein the criterion is selected from a group consisting of a detection frequency of the neurological event, a duration of the neurological event, an intensity of the neurological event, and an electrographic spread of the neurological event." The Office Action suggested that this feature was found in the Abstract of Echauz.

While reserving the right to argue that Echauz cannot be considered prior art, the Applicants have been unable to locate anything close to the recited feature in the abstract of Echauz. Echauz is directed toward the detecting epileptic seizures with a probability framework. (Echauz, Abstract). The Abstract discloses that Echauz is directed toward providing anticipatory time-locations of events such as seizures with longer and shorter prediction time scales. (Echauz, Abstract). In other words, Echauz is focused on detecting seizures rather than receiving indications to utilize the first and second inputs. Indeed, Echauz does not appear to provide any discussion of receiving an indication based on a criterion discussed above to determine if the

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treatment therapy is successful, let alone the recitation contained in independent claim 1. If the Examiner persists in this rejection, Applicants respectfully request a more detailed explanation of why the Examiner believes this feature is disclosed in the Abstract of Echauz.

In addition, the Office Action suggested that the feature "receiving a first indication whether the treatment therapy is acceptable to the patient" was disclosed in the following section of Echauz:

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variable, back to the zero vector [0 0 0]. That is, intervention is automatically continuously modified so as to steer neural activity away from conditions known to be consistent with the future occurrence of seizures. Feedback control 70 offers the most finely graded form of treatment and potential for absolutely minimal intervention and the attendant side effects, however, obtaining stable closed-loop controls requires more extensive experimentation during presurgical evaluation than the triggered open-loop alternative. The device can also be programmed to work in purely open-loop mode (delivering prophylactic treatment at preset on and off times), and can be manually operated by the patient via a button, magnet, vibration transducer, or any other switching technique.

(Echauz, C. 6, L. 1-14). This section, however, merely suggests that the device be operated in closed loop or open loop and can be turned on or off by the patient. Closed loop control or turning something on or off is not the same as "receiving a first indication whether the treatment therapy is acceptable to the patient" because neither closed loop control nor turning the device on or off provides an indication that the treatment therapy is acceptable to the patient. Instead, they merely allow the device to function.

Thus, Applicants respectfully submit that Echauz fails to disclose at least the above features of independent claim 1. As Echauz does not disclose all the limitations of claim 1, Echauz cannot be said to render claim 1 anticipated. Accordingly, Applicants respectfully assert that independent claim 1 is novel in view of Echauz.

Claims 2-8 and 12 depend from independent claim 1 and are not anticipated for at least the reasons supporting the allowability of claim 1 and for the additional limitations recited therein.

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The Office Actions suggested that claims 15-21 were rejected on the same basis as claims 1-9 and 12-13.

As an initial matter, Applicants respectfully submit that such a rejection of independent claims 15 and 18 fails to meet the requirements of a proper rejection. Claim 15, for example, recites a number of features not disclosed in claims 1-9 and 12-13 and it is unclear how the rejection of claims 1-9 and 12-13 relates to these additional features recited in claim 15. Similarly, independent claim 18, recites the feature "using an output from the detection algorithm to identify at least one neurological event focus location that is associated with the neurological event." To show anticipation, each and every limitations recited in the claim must be shown to be present in the cited reference. The Office Action, however, has not pointed to any portion of Echauz that discloses such features. Thus, Applicants respectfully assert the present Office Action does not meet the requirements of completeness and clarity required by 37 CFR 1.104(b). See MPEP 707.07(d) ("A plurality of claims should never be grouped together in a common rejection unless that rejection is equally applicable to all claims in the group."). In addition, claim 15 recites a feature similar to the feature "receiving a first indication whether the treatment therapy is acceptable to the patient" of claim 1 that is not disclosed by Echauz for at least the reasons discussed above with respect to claim 1. Accordingly, Applicants submit that for at least the above reasons Echauz fails to disclose all the limitations of independent claims 15 and 18. Therefore, claims 15 and 18 are believed to be in condition for allowance.

Claims 16-17 depend from claim 15 and are not anticipated by Echauz for at least the reasons that claim 15 is not anticipated and for the additional limitations recited therein.

Claims 19-20 depend from claim 18 and are not anticipated by Echauz for at least the reasons that claim 18 is not anticipated and for the additional limitations recited therein.

Independent claim 21 now recites features previously found recited in claim 9. Therefore, for at least the reasons discussed above with respect to claim 1, independent claim 21 cannot be said to be anticipated by Echauz.

Accordingly, claims 1, 3-8, 12-13, and 15-21 are believed to be in condition for allowance. Therefore, withdrawal of this ground of rejection and notification of same is respectfully requested.

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**Rejection under 35 U.S.C. § 103(a) - Echauz in view of Greene**

Claims 10-11 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Echauz in view of Greene. Claim 10 has been cancelled but the features of claim 10 have been incorporated into new independent claim 22.

As an initial matter, independent claim 1 (from which these claims depend) includes at least one feature not disclosed Echauz. The Office Action has not suggested that Greene corrects this deficiency, nor are the Applicants aware of any portion of Greene that can be so read. Therefore, the combination of Echauz and Greene fails to support a *prima facie* case of obviousness. See MPEP 706.02(j) ("To establish a *prima facie* case of obviousness, three basic criteria must be met. ... [Third], the prior art reference[s] ... must teach or suggest all the claim limitations.").

In addition, claim 11 recites "deleting a portion of the comparison data corresponding to a blanking interval of the treatment therapy." The Office Action admitted that this was not disclosed in Echauz. The Office Action suggested, however, that Greene corrected this deficiency. However, all the sections the Office Action has cited as suggesting that Greene does disclose the above feature merely disclose that Greene suggested the use of blanking. There is no discussion in Greene that the Applicants have been able to find that relates to any deleting of data, let alone the "deleting a portion of the comparison data corresponding to a blanking interval of the treatment therapy." Applicants respectfully submit that the mere use of blanking cannot be equated with "deleting a portion of the comparison data corresponding to a blanking interval of the treatment therapy."

Therefore, for the above reasons, not all the limitations of claim 11 are disclosed, suggested or taught by the references of record. Therefore, the combination of Echauz and Greene fail to make a *prima facie* case of obviousness. As not all the limitations of the independent claim are taught by the references of record, Applicants respectfully submit that independent claim 11 is nonobvious in view of the combination of Echauz and Greene.

Claim 14, which depends from claim 11, is nonobvious for the reasons supporting the nonobviousness of claim 11 and for the additional limitations recited therein.

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New independent claim 22, which is claim 10 rewritten in independent form, includes the feature of "deleting a portion of the comparison data corresponding to a blanking interval of the treatment therapy" and further includes "applying the treatment therapy every n<sup>1</sup> detection cluster." As noted above, Greene fails to disclose the first feature and the Office Action has failed to provide any support for the second feature. Therefore, as the combination of Echauz and Greene fails to disclose all the limitations of independent claim 22, claim 22 cannot fairly be said to be unpatentable in view of Echauz and Greene.

Claim 23 depends from claim 22 and is allowable for at least the reasons : support the allowability of claim 22 and for the additional limitations recited therein.

Accordingly, withdrawal of this ground of rejection is respectfully requested.

#### CONCLUSION

All rejections have been addressed. Applicants believe all pending claims are in condition for allowance and earnestly solicit prompt notification of the same.

Respectfully submitted,

**BANNER & WITCOFF, LTD.**

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By: 

Binal J. Patel  
Reg. No. 42,065

Banner & Witcoff, Ltd.  
10 South Wacker Drive  
Suite 3000  
Chicago, IL 60606  
Tel: (312) 463-5000  
Fax: (312) 463-5001